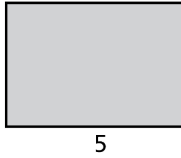
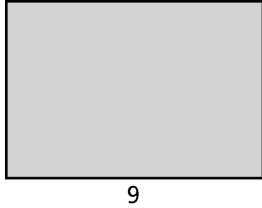


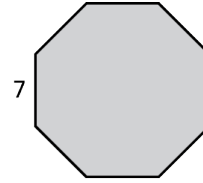
**2.6 Practice A**

The two figures are similar. Find the ratio (small to large) of the perimeters and of the areas.

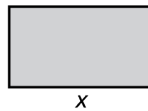
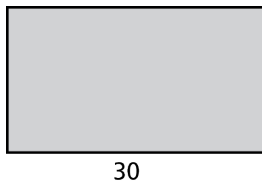
1.



2.



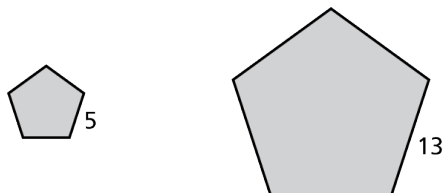
3. How does doubling the side lengths of a triangle affect its area?
4. The ratio of the corresponding side lengths of two similar rectangular tables is 4 : 5.
- What is the ratio of the perimeters?
  - What is the ratio of the areas?
  - The perimeter of the larger table is 44 feet. What is the perimeter of the smaller table?
5. The figures are similar. The ratio of the perimeters is 5 : 9. Find  $x$ .



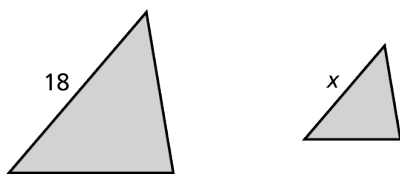
6. The ratio of the area of Triangle  $A$  to Triangle  $B$  is 16 : 49. Triangle  $A$  is similar to Triangle  $B$ .
- Which triangle is larger,  $A$  or  $B$ ?
  - A side length of Triangle  $B$  is 3.5 inches. What is the corresponding side length of Triangle  $A$ ?
  - What is the ratio of the perimeter of Triangle  $A$  to the perimeter of Triangle  $B$ ?
  - The side lengths of Triangle  $A$  are increased by 40%. The side lengths of Triangle  $B$  do not change. What is the new ratio of the area of Triangle  $A$  to Triangle  $B$ ?

**2.6 Practice B**

1. The two figures are similar. Find the ratio (small to large) of the perimeters and of the areas.



2. How does tripling the side lengths of a pentagon affect its perimeter?
3. The figures are similar. The ratio of the perimeters is  $12 : 7$ . Find  $x$ .



4. The ratio of the corresponding side lengths of two similar parallelogram signs is  $9 : 14$ .
- What is the ratio of the perimeters?
  - What is the ratio of the areas?
  - One side length of the smaller sign is 45 feet. What is the side length of the corresponding side of the larger sign?
5. A window is put in a door. The window and the door are similar rectangles. The door has a width of 4 feet. The window has a width of 30 inches.
- How many times greater is the area of the door than the area of the window?
  - The area of the door is 32 square feet. What is the area of the window?
  - What is the perimeter of the window?
6. The area of Circle P is  $4\pi$ . The area of Circle Q is  $25\pi$ .
- What is the ratio of their areas?
  - What is the ratio of their radii?
  - The radius of Circle Q is decreased by 50%. What is the new circumference of Circle Q?